

LNA Series

20 – 4000MHz Low Noise Amplifier

Features

- Frequency Range: 20 – 4000MHz
- Gain: 25dB
- P_{1dB}: +18dBm
- IP3: +34dBm
- Noise Figure: 2.0dB
- DC Power: 5V
- SMA Connector

Performance measured @ 2000MHz

Description

LNA-4050 is a wideband high gain Low Noise Amplifier operates with frequency range for 20MHz to 4000MHz Band.

Picture



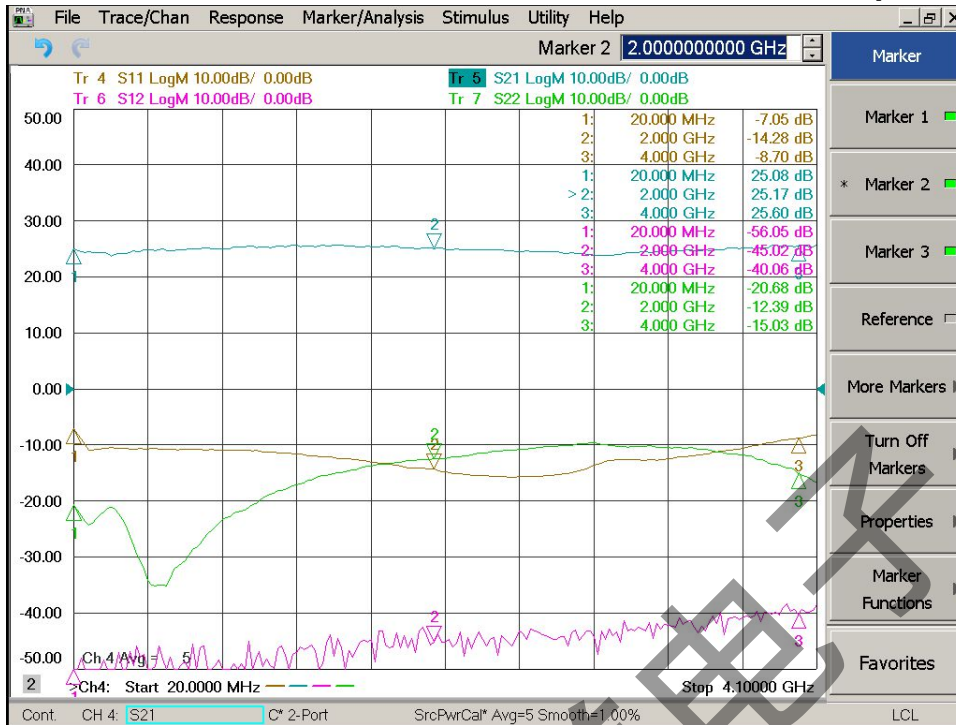
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +5V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	20		4000
Gain S ₂₁	f = 20MHz	23	25	
	f = 2000MHz	23	25	
	f = 4000MHz	23	25	
Gain Flatness	dB		± 0.7	± 1.5
P _{1dB}	dBm	+16	+18	
IP3	dBm	+32	+34	
Noise Figure	dB		2.0	2.5
Reverse Isolation S ₁₂	dB	-40	-45	
Input VSWR S ₁₁			1.6:1	2.0:1
Output VSWR S ₂₂			1.5:1	2.0:1
DC Power Supply	V	4.5	5.0	5.5
Supply Current	mA		160	180

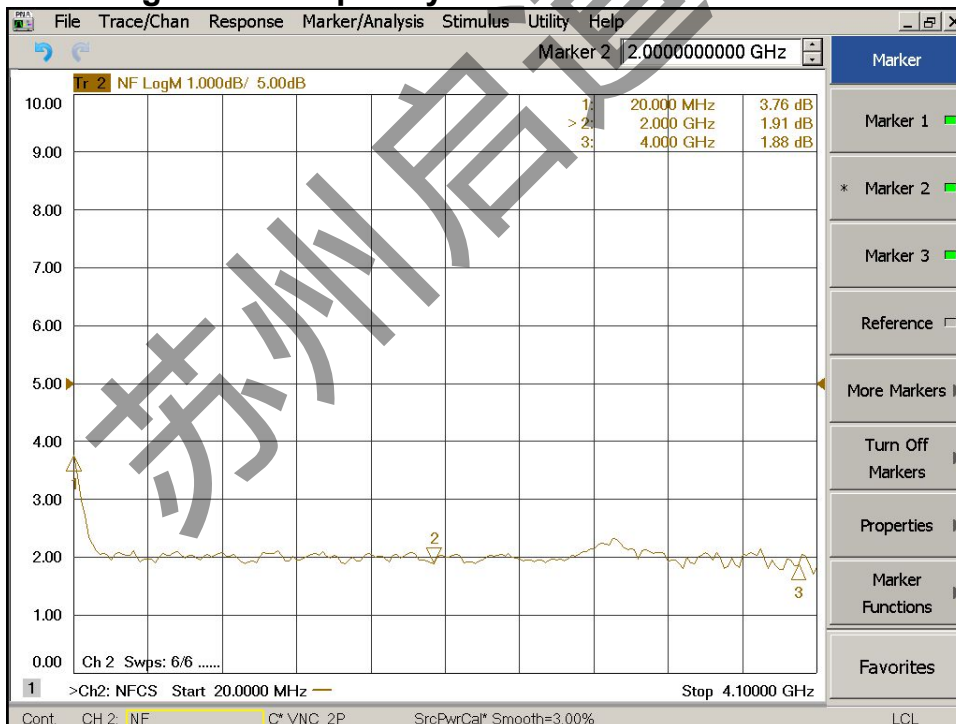
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



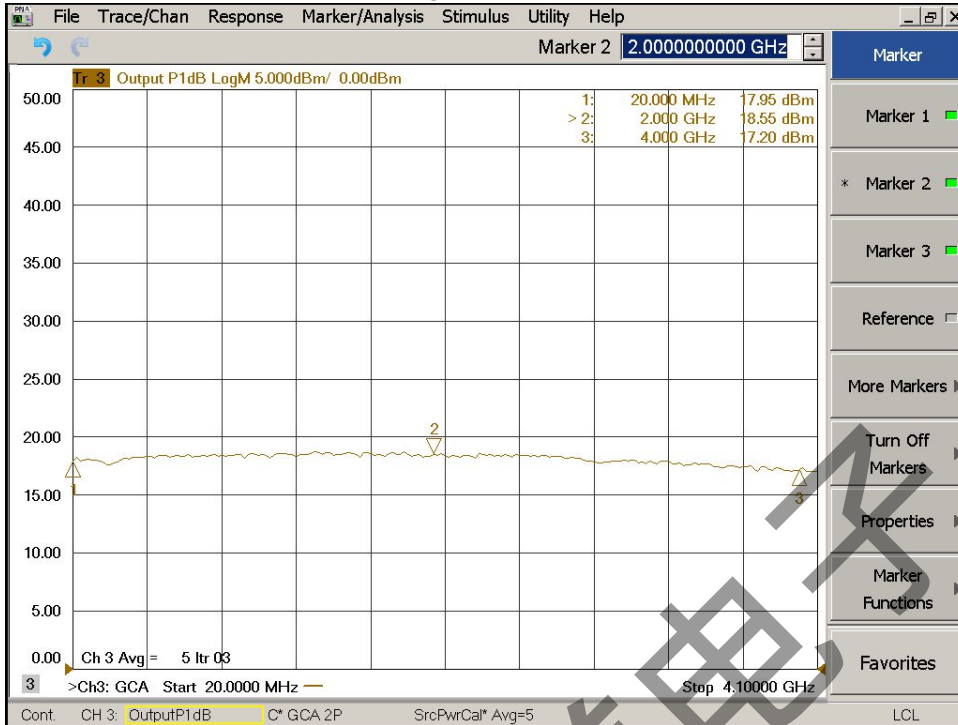
Noise Figure vs Frequency



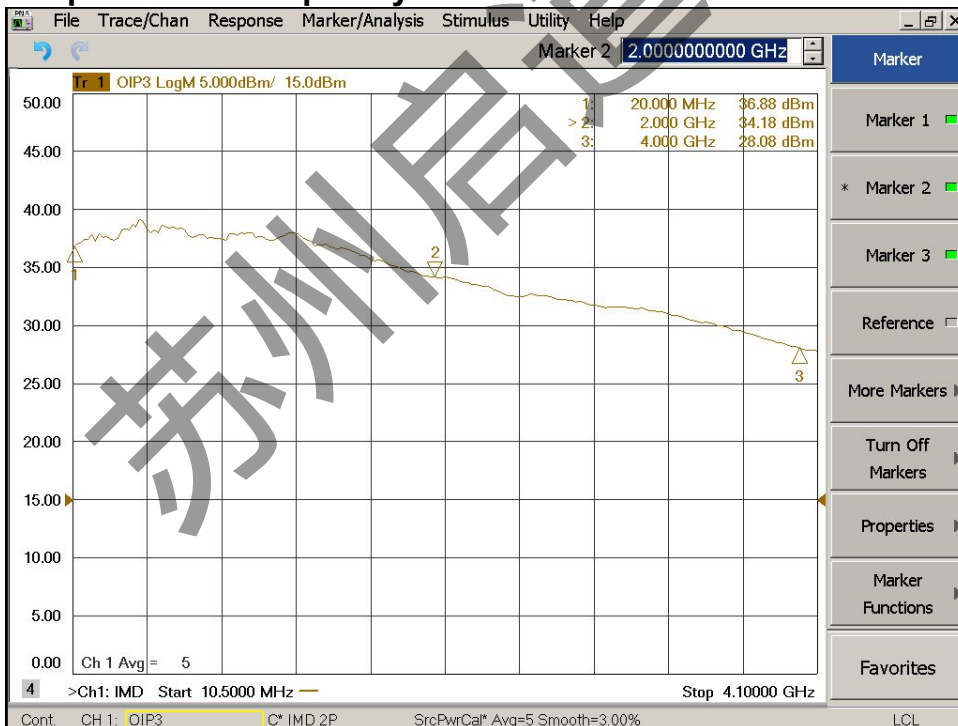
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Output P1dB vs Frequency



Output IP3 vs Frequency



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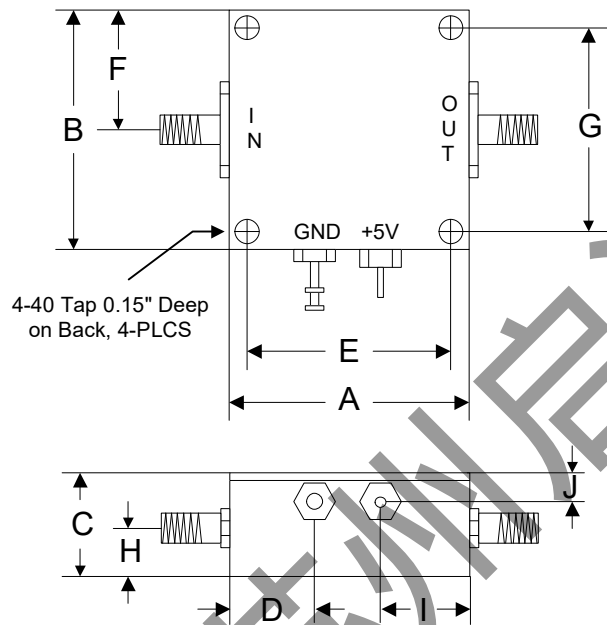
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+6V
RF Input Power	+13dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76